

**WHAT IS CLAIMED IS:**

1           1.     A flat panel for a cathode ray tube comprising:

2                     an outer surface having a flat configuration; and

3                     an inner surface having a non-spherical, convexly curved  
4 configuration relative to the outer surface and satisfying formula 1,

5                                  $Y_1 \leq Y_2$ .....(formula 1)

6                     wherein  $Y_1$  represents a vertical distance between the outer surface and a  
7 refracted screen image on a central axis of the panel, and  $Y_2$  represents a vertical  
8 distance between the outer surface and the refracted screen image in peripheral  
9 areas other than the central axis of the panel.

1           2.     A flat panel for a cathode ray tube as claimed in claim 1, wherein

2                     the panel has a high transmission ratio equal to or greater than about 60%.

1           3.     In a cathode ray tube comprising a funnel having a neck part and an

2 opening part, an electron gun provided at a front end portion of the neck part in

3 the funnel for emitting electron beams, a deflection yoke for deflecting the

4 electron beams emitted from the electron gun, a shadow mask for discriminating

5 the electron beams deflected by the deflection yoke, and a panel coupled in the

6 opening part of the funnel and provided with a phosphor surface inside for

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7 realizing a screen image by the electron beams discriminated by the shadow  
8 mask, the panel comprising:

9 an outer surface having a flat configuration; and

10 an inner surface having a non-spherical, convexly curved  
11 configuration relative to the outer surface and satisfying formula 1,

12 
$$Y_1 \leq Y_2 \dots \dots \dots \text{(formula 1)}$$

13 wherein  $Y_1$  represents a vertical distance between the outer surface and a  
14 refracted screen image on a central axis of the panel, and  $Y_2$  represents a vertical  
15 distance between the outer surface and the refracted screen image in peripheral  
16 areas other than the central axis of the panel.

1 4. A flat panel for a cathode ray tube as claimed in claim 3, wherein  
2 the panel has a high transmission ratio equal to or greater than about 60%.

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